

Patent Claims

1. An axial gas turbine (1) directed along a turbine axis (10) and comprising a compressor (3), a combustion chamber (5) and a turbine part (7), with guide vane rings (11) and rotor blade rings (13) being arranged in axial succession in a hot-gas duct (12) in the turbine part (7), a hot gas (17) flowing through the hot-gas duct (12) in operation, and the guide vane rings (11) and rotor blade rings (13) being cooled by cooling air (53, 55), the pressure level of which decreases in the direction of flow of the hot gas (17),

characterized in that

a sealing element (35), which seals off the different pressure levels with respect to one another and extends as a single piece around at least a quarter of a circle (41) running perpendicularly on the turbine axis as its center point, is arranged between at least one guide vane ring (11) and a directly adjacent rotor blade ring (13).

2. The gas turbine (1) as claimed in claim 1, in which the sealing element (35) extends over half the circle (41).

3. The gas turbine (1) as claimed in claim 1 or 2, in which the sealing element (35) is formed as an annular metal sheet with a surface F extending in the radial direction and having an outer edge (37) and an inner edge (39).

4. The gas turbine (1) as claimed in claim 3,
in which the inner edge (39) is arranged in respectively
corresponding platform grooves (85), which in the side remote
from the hot-gas duct (12) of a respective platform (87) of
5 guide vanes (14) of the guide vane ring (11) or of a guide ring
(89) located radially outside the rotor blade ring (13), and
the outer edge (37) is arranged in a carrier groove (83)
running within a guide vane carrier (79).

10 5. The gas turbine (1) as claimed in claim 4,
in which the sealing element (35) is clamped using a screw (65)
which presses on its surface F and presses the sealing element
(35) onto the opposite platform groove side wall and carrier
groove side wall.

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6. The gas turbine (1) as claimed in claim 5,
in which the guide vanes (14) each have an axial fixed point
(73), at which they are fixed against axial displacement in the
guide vane carrier (79) by means of a suitable hooked formation
20 (71), with the sealing element (35) being arranged in the
region of the axial fixed points (73).

7. The gas turbine (1) as claimed in claim 3,
in which the guide vanes (14) each have an axial fixed point
25 (73), at which they are fixed against axial displacement in the
guide vane carrier (11) by means of a suitable hooked formation
(71), with the sealing element (35) being arranged remote from
the region of the axial fixed points (73).